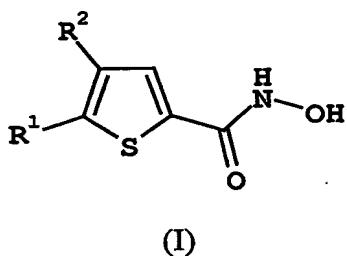


## CLAIMS

1. A compound of formula (I):



in which

10  $R^1$  represents aryl or heteroaryl, each optionally substituted by one or more groups selected from  $R^3$ , alkylenedioxy, carboxy, cyano, halo, hydroxy, nitro, haloalkyl, haloalkoxy,  $-C(=O)-R^3$ ,  $-C(=O)-OR^3$ ,  $-C(=Z)-NR^4R^5$ ,  $-NR^4R^5$ ,  $-NR^6-C(=O)-OR^3$ ,  $-NR^6-C(=O)-NR^4R^5$ ,  $-NR^6-C(=Z)-R^3$ ,  $-O-C(=O)-NR^4R^5$ ,  $-NR^6-SO_2-R^3$ ,  $-OR^3$ ,  $-O-C(=O)R^3$ ,  $-SH$ ,  $-SR^3$ ,  $-SOR^3$ ,  $-SO_2R^3$  and  $-SO_2-NR^4R^5$ ;

15  $R^2$  represents hydrogen, chloro, cyano, fluoro, alkoxy, alkyl, or haloalkyl;

$R^3$  represents aryl, heteroaryl, cycloalkyl, cycloalkenyl, heterocycloalkyl or  $R^7$ ;

20  $R^4$  and  $R^5$  independently represent a group selected from hydrogen, alkyl, alkenyl, aryl, heteroaryl, cycloalkyl, cycloalkenyl or heterocycloalkyl, wherein said alkyl or alkenyl are optionally substituted by aryl, heteroaryl, cycloalkyl, cycloalkenyl or heterocycloalkyl; or the group  $-NR^4R^5$  may form a cyclic amine;

$R^6$  represents hydrogen or lower alkyl;

25  $R^7$  represents alkyl, alkenyl and alkynyl, wherein said alkyl, alkenyl or alkynyl are optionally substituted by one or more groups selected from aryl, heteroaryl, cycloalkyl, cycloalkenyl, heterocycloalkyl, hydroxy,  $-C(=Z)-NR^4R^5$ ,  $-NR^4R^5$ ,  $-NR^6-C(=Z)-R^8$ ,  $-O-C(=O)-NR^4R^5$ ,  $-NR^6-C(=O)-OR^8$ ,  $-NR^6-C(=O)-NR^4R^5$ ,  $-NR^6-SO_2-R^8$ ,  $-OR^8$ ,  $-SOR^8$ ,  $SO_2R^8$  and  $-SO_2-NR^4R^5$ ;

R<sup>8</sup> represents alkyl, alkenyl or alkynyl, optionally substituted by one or more groups selected from aryl, heteroaryl, cycloalkyl, cycloalkenyl, heterocycloalkyl, hydroxy and halogen; or R<sup>8</sup> represents aryl, heteroaryl, cycloalkyl, cycloalkenyl or heterocycloalkyl; and

5 Z is O or S,  
and corresponding *N*-oxides, pharmaceutically acceptable salts, solvates and prodrugs of such compounds.

2. A compound according to claim 1 wherein R<sup>1</sup> is optionally substituted phenyl.

10 3. A compound according to claim 1 or 2 wherein R<sup>1</sup> is 4-methoxyphenyl.

4. A compound according to claim 1 wherein R<sup>1</sup> is selected from optionally substituted monocyclic heteroaryl.

15 5. A compound according to claim 1 wherein R<sup>1</sup> is selected from optionally substituted imidazolyl, isoxazolyl, oxadiazolyl, pyrazolyl, pyridinyl, thienyl and pyrimidinyl.

20 6. A compound according to claim 1 wherein R<sup>1</sup> is selected from optionally substituted imidazolyl, pyrazolyl, pyridinyl and pyrimidinyl.

7. A compound according to claim 1, 5 or 6 wherein R<sup>1</sup> is substituted by a haloalkyl group.

25 8. A compound according to claim 1, 5 or 6 wherein R<sup>1</sup> is substituted by an optionally substituted alkyl, alkenyl or alkynyl group.

9. A compound according to claim 1, 5 or 6 wherein R<sup>1</sup> is substituted by an optionally substituted alkyl group.

10. A compound according to claim 8 or 9 wherein said alkyl, alkenyl or alkynyl group is substituted by one or more groups selected from optionally substituted aryl, heteroaryl, cycloalkyl, cycloalkenyl and heterocycloalkyl, and from hydroxy, -C(=Z)-NR<sup>4</sup>R<sup>5</sup>, -NR<sup>4</sup>R<sup>5</sup>, -NR<sup>6</sup>-C(=Z)-R<sup>8</sup>, -O-C(=O)-NR<sup>4</sup>R<sup>5</sup>, -NR<sup>6</sup>-C(=O)-OR<sup>8</sup>, -NR<sup>6</sup>-C(=O)-NR<sup>4</sup>R<sup>5</sup>, -NR<sup>6</sup>-SO<sub>2</sub>-R<sup>8</sup>, -OR<sup>8</sup>, -SOR<sup>8</sup>, SO<sub>2</sub>R<sup>8</sup> and -SO<sub>2</sub>-NR<sup>4</sup>R<sup>5</sup>.  
5
11. A compound according to claim 8 or 9 wherein said alkyl, alkenyl or alkynyl group is substituted by a group selected from optionally substituted aryl, heteroaryl and heterocycloalkyl, and from -C(O)-NR<sup>4</sup>R<sup>5</sup>, -NR<sup>4</sup>R<sup>5</sup>, -NR<sup>6</sup>-C(O)-R<sup>8</sup>,  
10 -NR<sup>6</sup>-SO<sub>2</sub>-R<sup>8</sup>, -OR<sup>8</sup> and -SO<sub>2</sub>-NR<sup>4</sup>R<sup>5</sup>.
12. A compound according to claim 8 or 9 wherein said alkyl, alkenyl or alkynyl group is substituted by optionally substituted aryl and heteroaryl.
- 15 13. A compound according to claim 1 or claim 10 wherein Z is O.
14. A compound according to claim 5 or 6 wherein R<sup>1</sup> is substituted by a group X wherein X is selected from the group consisting of optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycloalkyl, -C(O)-NR<sup>4</sup>R<sup>5</sup>, -NR<sup>4</sup>R<sup>5</sup>, -NR<sup>6</sup>-C(O)-R<sup>8</sup>, -NR<sup>6</sup>-SO<sub>2</sub>-R<sup>8</sup>, -OR<sup>8</sup>, -SO<sub>2</sub>-NR<sup>4</sup>R<sup>5</sup> and  
20 alkyl substituted by a group selected from optionally substituted aryl, optionally substituted heteroaryl, optionally substituted heterocycloalkyl, -C(O)-NR<sup>4</sup>R<sup>5</sup>, -NR<sup>4</sup>R<sup>5</sup>, -NR<sup>6</sup>-C(O)-R<sup>8</sup>, -NR<sup>6</sup>-SO<sub>2</sub>-R<sup>8</sup>, -OR<sup>8</sup> and -SO<sub>2</sub>-NR<sup>4</sup>R<sup>5</sup>.
- 25 15. A compound according to claim 14 wherein X is selected from:  
-(CH<sub>2</sub>)<sub>n</sub>CONR<sup>4</sup>(CH<sub>2</sub>)<sub>m</sub>Ar,  
-(CH<sub>2</sub>)<sub>n</sub>SO<sub>2</sub>NR<sup>4</sup>(CH<sub>2</sub>)<sub>m</sub>Ar,  
-(CH<sub>2</sub>)<sub>n</sub>NR<sup>6</sup>CO(CH<sub>2</sub>)<sub>m</sub>Ar,  
-(CH<sub>2</sub>)<sub>n</sub>NR<sup>6</sup>SO<sub>2</sub>(CH<sub>2</sub>)<sub>m</sub>Ar,  
30 -(CH<sub>2</sub>)<sub>n</sub>NR<sup>4</sup>(CH<sub>2</sub>)<sub>m</sub>Ar,  
-(CH<sub>2</sub>)<sub>n</sub>O(CH<sub>2</sub>)<sub>m</sub>Ar, and  
-(CH<sub>2</sub>)<sub>n</sub>Ar;

wherein Ar is optionally substituted aryl, heteroaryl or heterocycloalkyl;

n is 0, 1, 2 or 3; and

m is 0, 1, 2, 3 or 4.

5 16. A compound according to claim any preceding claim wherein said R<sup>4</sup> and R<sup>6</sup> groups are independently selected from hydrogen; and/or wherein said R<sup>5</sup> and R<sup>8</sup> groups are independently selected from optionally substituted aryl, heteroaryl and heterocycloalkyl, and from alkyl substituted by optionally substituted aryl, heteroaryl or heterocycloalkyl.

10

17. A compound according to any of claims 10 to 16 wherein the substituent(s) on said optionally substituted aryl, heteroaryl and heterocycloalkyl groups are selected from halogen, CF<sub>3</sub>, OCF<sub>3</sub>, alkyl, acylamino, arylalkyl, aryloxy, aryl, cyclic amino, heteroaryl, alkylenedioxy and aminosulphonyl.

15

18. A compound according to any of claims 10 to 16 wherein said optionally substituted aryl is selected from phenyl; said optionally substituted heteroaryl is selected from quinolinyl, isoquinolinyl, pyridyl, oxadiazolyl, thiadiazolyl, imidazolyl, indolyl, indazolyl, pyrrolyl and benzofuranyl; and said optionally substituted heterocycloalkyl is selected from either (i) an optionally substituted saturated multicyclic heterocarbocyclic moiety in which an aryl or heteroaryl ring and a heterocycloalkyl group are fused together to form a cyclic structure, or (ii) piperazinyl substituted on nitrogen by aryl, arylalkyl, heteroarylalkyl or heteroaryl.

25 19. A compound according to claim 5 or 6 wherein R<sup>1</sup> is selected from 1-(2-phenylethyl)-1*H*-pyrazol-3-yl, 1-benzyl-1*H*-pyrazol-3-yl, 4-trifluoromethyl-1*H*-imidazol-2-yl, pyridin-2-yl, 5-trifluoromethyl-1*H*-pyrazol-3-yl, 1-methyl-1*H*-pyrazol-3-yl, 2-methyl-2*H*-pyrazol-3-yl, 1-methyl-5-trifluoromethyl-1*H*-pyrazol-3-yl, 2-methyl-5-trifluoromethyl-2*H*-pyrazol-3-yl, 1*H*-pyrazol-3-yl, pyridin-4-yl, 5-trifluoromethylisoxazol-3-yl, 3-methyl[1,2,4]oxadiazol-5-yl, or thiophene-2-yl.

30 20. A compound according to any preceding claim wherein R<sup>2</sup> is hydrogen.

21. A compound according to any preceding claim wherein R<sup>3</sup> and R<sup>8</sup> are independently selected from alkyl.

22. A compound according to any preceding claim wherein R<sup>3</sup> and R<sup>8</sup> are independently selected from methyl and ethyl.

5

23. A compound according to any preceding claim wherein R<sup>4</sup> and R<sup>5</sup> are independently selected from hydrogen, alkyl, arylalkyl and heteroarylalkyl.

10 24. A compound according to claim 1 selected from :  
5-(4-trifluoromethyl-1*H*-imidazol-2-yl)-thiophene-2-carboxylic acid hydroxyamide; 5-(1-benzyl-1*H*-pyrazol-3-yl)-thiophene-2-carboxylic acid hydroxyamide; 5-(1-phenethyl-1*H*-pyrazol-3-yl)-thiophene-2-carboxylic acid hydroxyamide; 15 5-pyridin-2-yl-thiophene-2-carboxylic acid hydroxyamide; and corresponding *N*-oxides, pharmaceutically acceptable salts, solvates and prodrugs of such compounds.

25. A compound according to claim 1 selected from:  
20 5-[1-(2,3-dihydro-benzo[1,4]dioxin-2-ylmethyl)-1*H*-pyrazol-3-yl]-thiophene-2-carboxylic acid hydroxyamide; 5-(5-phenethyl-1*H*-pyrazol-3-yl)-thiophene-2-carboxylic acid hydroxyamide; 5-pyrimidin-2-yl-thiophene-2-carboxylic acid hydroxyamide; 25 5-(1-benzo[1,3]dioxol-5-ylmethyl-1*H*-pyrazol-3-yl)-thiophene-2-carboxylic acid hydroxyamide; 5-(1-phenethyl-5-trifluoromethyl-1*H*-pyrazol-3-yl)-thiophene-2-carboxylic acid hydroxyamide; 5-(4-benzyloxy-pyrimidin-2-yl)-thiophene-2-carboxylic acid hydroxyamide; 30 5-(2-phenethyl-3*H*-imidazol-4-yl)-thiophene-2-carboxylic acid hydroxyamide; 5-[1-(5-*tert*-butyl-[1,2,4]oxadiazol-3-ylmethyl)-1*H*-pyrazol-3-yl]-thiophene-2-carboxylic acid hydroxyamide; 5-{1-[6-(2,2-dimethyl-propionylamino)-pyridin-2-ylmethyl]-1*H*-pyrazol-3-yl}-thiophene-2-carboxylic acid hydroxyamide;

5-(5-phenylacetyl-amino-pyridin-2-yl)-thiophene-2-carboxylic acid hydroxyamide; acid  
5-(1-quinolin-2-ylmethyl-1*H*-pyrazol-3-yl)-thiophene-2-carboxylic acid  
hydroxyamide; acid  
5-[5-(2-benzyloxy-ethylamino)-pyridin-2-yl]-thiophene-2-carboxylic acid  
hydroxyamide; acid  
5-{5-[(2,3-dihydro-benzo[1,4]dioxin-6-ylmethyl)-amino]-pyridin-2-yl}-thiophene-  
2-carboxylic acid hydroxyamide; acid  
5-{5-[(benzofuran-2-ylmethyl)-amino]-pyridin-2-yl}-thiophene-2-carboxylic acid  
hydroxyamide; acid  
5-{1-[2-(4-fluoro-benzyloxy)-ethyl]-1*H*-pyrazol-3-yl}-thiophene-2-carboxylic acid  
hydroxyamide; acid  
5-(1-phenylcarbamoylmethyl-1*H*-pyrazol-3-yl)-thiophene-2-carboxylic acid  
hydroxyamide; acid  
5-[1-(quinolin-8-ylcarbamoylmethyl)-1*H*-pyrazol-3-yl]-thiophene-2-carboxylic  
acid hydroxyamide; acid  
5-{1-[(4-fluoro-phenylcarbamoyl)-methyl]-1*H*-pyrazol-3-yl}-thiophene-2-  
carboxylic acid hydroxyamide; acid  
5-{1-[(4-oxazol-5-yl-phenylcarbamoyl)-methyl]-1*H*-pyrazol-3-yl}-thiophene-2-  
carboxylic acid hydroxyamide; acid  
20 quinoline-2-carboxylic acid {2-[3-(5-hydroxycarbamoyl-thiophen-2-yl)-pyrazol-1-  
yl]-ethyl}-amide; acid  
5-{1-[(2-morpholin-4-yl-phenylcarbamoyl)-methyl]-1*H*-pyrazol-3-yl}-thiophene-2-  
carboxylic acid hydroxyamide; acid  
5-(1-{[2-(1*H*-indol-3-yl)-ethylcarbamoyl]-methyl}-1*H*-pyrazol-3-yl)-thiophene-2-  
carboxylic acid hydroxyamide; acid  
25 5-{1-[(2-fluoro-phenylcarbamoyl)-methyl]-1*H*-pyrazol-3-yl}-thiophene-2-  
carboxylic acid hydroxyamide; acid  
5-[1-(quinolin-3-ylcarbamoylmethyl)-1*H*-pyrazol-3-yl]-thiophene-2-carboxylic  
acid hydroxyamide; acid  
30 2-(5-hydroxycarbamoyl-thiophen-2-yl)-5-methyl-1*H*-imidazole-4-carboxylic acid  
phenethyl-amide; acid  
2-(5-hydroxycarbamoyl-thiophen-2-yl)-5-methyl-1*H*-imidazole-4-carboxylic acid  
benzylamide; acid

5-(6-benzyloxymethyl-pyridin-2-yl)-thiophene-2-carboxylic acid hydroxyamide; 5-{1-[(1*H*-indol-7-ylcarbamoyl)-methyl]-1*H*-pyrazol-3-yl}-thiophene-2-carboxylic acid hydroxyamide; 5-{1-[(3-chloro-phenylcarbamoyl)-methyl]-1*H*-pyrazol-3-yl}-thiophene-2-carboxylic acid hydroxyamide; 5-{1-[(3-methoxy-phenylcarbamoyl)-methyl]-1*H*-pyrazol-3-yl}-thiophene-2-carboxylic acid hydroxyamide; 5-[1-(1-oxy-quinolin-2-ylmethyl)-1*H*-pyrazol-3-yl]-thiophene-2-carboxylic acid hydroxyamide; 5-(1-{2-[(benzo[1,3]dioxol-5-ylmethyl)-amino]-ethyl}-1*H*-pyrazol-3-yl)-thiophene-2-carboxylic acid hydroxyamide; 5-[1-(2-benzylamino-ethyl)-1*H*-pyrazol-3-yl]-thiophene-2-carboxylic acid hydroxyamide; and corresponding *N*-oxides, pharmaceutically acceptable salts, solvates and prodrugs of such compounds.

15

26. A compound according to any of claims 1 to 25, for use in therapy.

27. The use of a compound according to any of claims 1 to 25 in the manufacture of a medicament for the treatment of a disease in which inhibition of histone deacetylase can prevent, inhibit or ameliorate the pathology and/or symptomatology of the disease.

20

28. A method for treating a disease in a patient in which inhibition of histone deacetylase can prevent, inhibit or ameliorate the pathology and/or symptomatology of the disease, which method comprises administering to the patient a therapeutically effective amount of a compound according to any of claims 1 to 25.

25

29. A method or use according to claim 27 or 28 wherein said disease is a disease caused by increased cell proliferation.

30

30. A method or use according to claim 27 or 28 wherein said disease is cancer, psoriasis, fibroproliferative disorders, smooth muscle cell proliferation disorders,

inflammatory diseases and conditions treatable by immune modulation, neurodegenerative disorders, diseases involving angiogenesis, fungal and parasitic infections and haematopoietic disorders.

- 5 31. A method or use according to claim 27 or 28 wherein said disease is liver fibrosis, arteriosclerosis, restenosis, rheumatoid arthritis, autoimmune diabetes, lupus, allergies, Huntington's disease, retinal diseases, protozoal infections, anaemia, sickle cell anaemia and thalassemia.
- 10 32. A method or use according to claim 31 wherein said protozoal infection is malaria, toxoplasmosis or coccidiosis.
- 15 33. A method or use according to claim 31 wherein said retinal disease is diabetic retinopathy, age-related macular degeneration, interstitial keratitis or rubeotic glaucoma.
34. A method or use according to claim 27 or 28 wherein said disease is congestive heart failure due to cardiomyocyte hypertrophy.